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Your attention is invited

**NEWS
OF THE
CONSTRUCTION
DIVISION
OF
ASCE**





DIVISION ACTIVITIES

CONSTRUCTION DIVISION

Proceedings of the American Society of Civil Engineers

NEWS

March, 1961

GREETING FROM NEW CD CHAIRMAN

At the Construction Division Executive Committee meeting held during the Boston convention last October, Joseph F. Jelley (RADM CEC USN-Ret) took over as chairman, succeeding Lyman D. Wilbur. Admiral Jelley is now a consulting engineer in Colorado Springs, Colo., having retired several years ago from the Navy which he once served as chief of the Bureau of Yards & Docks. Lyman Wilbur, engineering vice-president of Morrison-Knudsen in Boise, Idaho, continues to serve on the Executive Committee.

Carl B. Jansen, president of Dravo Corp., Neville Island, Pa., and Michael N. Salgo, Columbia Broadcasting System construction activities head, also continue to serve on the Executive Committee for 1961. The new member is Dwight W. Winkelman, Syracuse, N. Y. contractor, who succeeds Walter L. Couse, Detroit building contractor. Mr. Couse had preceded Mr. Wilbur as chairman.

Admiral Jelley has penned the following message to members of the Construction Division:

To the Construction Division:

After two years on the Executive Committee, I moved up to Chairman at the Boston Convention. I feel that I am beginning to understand the problems involved in the Technical Divisions of our Society. Hampered as we are by inadequate funds, we have made good progress during the past two years under the leadership of Walter Couse and Lyman Wilbur. The efforts of the many members of our committees has been invaluable. You all know how difficult it is for busy engineers to volunteer their services in our committee work. But projects are underway and some have already resulted in interesting convention programs or valuable papers in the Journal.

Our general objective continues to be to encourage the use of trained engineers in construction of all kinds and to interest engineering

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employees of construction contractors in the American Society of Civil Engineers. The Construction Division is one of the largest in our Society, so we know many members are interested in construction. I have always had the deepest satisfaction in seeing a project that I had helped to plan become a reality. Most engineers get a thrill out of seeing their designs take shape and form.

I look forward to more interesting programs at our conventions and to more and better papers in our Journal. I want to take this means to thank the chairman and members of our committees for their excellent work to date on behalf of the Construction Division. I look forward to their continued progress.

/S/ Joseph F. Jelley
Chairman, Executive Committee
Construction Division

CD TAKES ON A FIGHT

A long hard battle has been started by the Construction Division to win over the many state boards of professional registration who disallow credit for professional experience of construction engineers working for contractors. Many state boards of engineering examiners apparently have not kept pace with the ever-increasing amount of professional know-how that today's heavy construction jobs require of the contractor.

The opening salvo of the campaign was a letter sent to all 50 state boards of engineering examiners written by ASCE executive secretary William H. Wisely at the request of the Construction Division. The letter takes indirect notice of the legal enigma involved in allowing credit for professional experience to contractors' engineers when contracting in the past was not considered to involve the exercising of professional judgment. Thus, the phrase "licensing construction engineers" appears in the letter, which is reproduced in full below.

At this writing in mid-February, about 20 answers have been received. They range the full gamut with many taking noncommittal stands (assumed to be a polite "no"). The only conclusion drawn from the replies at this early stage is that the battle to win universal recognition for the responsibilities of construction engineers will be long and arduous. The ASCE letter follows:

January 26, 1961

TO ALL STATE BOARDS OF ENGINEERING EXAMINERS

Gentlemen:

It has come to our attention that some state boards of engineering examiners may be disallowing credit for professional experience of engineers in the employ of construction contractors.

It should be noted in this respect that the construction phase of engineering constitutes a most important area of professional activity. Many engineers are engaged in complex and varied construction operations that demand their specialized technical skills and professional qualifications.

It is in the public interest that engineers serving the nation's largest industry be upgraded through licensing by the states. Reports of construction failures are all-too-numerous. Only through the assurance of competent engineering can proper control be realized.

The ASCE Construction Division has more than 10,000 enrollees—almost a quarter of the Society membership. Many of these men have attained the grade of Fellow, which requires that they be legally registered engineers. Their qualification for membership in this grade is significant of the Society's high appraisal of the professional aspects of construction engineering experience.

The ASCE Construction Division, through unanimous action of its Executive Committee, has asked that the matter of licensing construction engineers be brought to the attention of all state examining boards. The purpose of this letter is to determine the extent of the problem, so that existing inequities may be corrected.

It would be appreciated if you would furnish the undersigned a statement of your current policy and procedures in evaluating construction experience in the various positions of construction contractor employ. These considerations should include, but not be limited to: Construction Superintendent; Project, Field, Estimating, Cost and Materials Engineer; Purchasing Agent; etc.

Copies of rules, regulations, forms or guides used in your experience evaluation work would be most welcome.

Sincerely,

/S/ William H. Wisely
Executive Secretary

HOW TO WIN FRIENDS AND INFLUENCE THE PUBLIC

The Construction Division, and particularly Blair Birdsall of John A. Roebling Sons Co., is spearheading a "Construction Industry Conference" program. The pilot venture is tentatively set for early May 1961 in Philadelphia.

The idea is to create better understanding of the construction industry by the general public. Among specific benefits of a successful effort would be more public enthusiasm for needed public works projects, elimination of the stigma attaching to the entire industry because of a few unethical operators, and attraction of more outstanding youngsters to careers in construction.

The vehicle is seen as a series of conferences in the metropolitan areas of the country to be attended by high school principals, guidance directors, local newspaper, magazine, radio and TV people, engineering college representatives and, of course, leading members of the local construction industry. The last-named would be drawn from among ASCE, AGC, AIA and building trades groups.

The first such conference is tentatively scheduled in Philadelphia early in May as best fitted to the schedules of educational institutions. Another is being considered to Phoenix, Arizona. Persons interested in the Philadelphia conference can reach Mr. Birdsall at Makefield Road, Yardley, Pa.

HOW TO RUN A LOCAL CONSTRUCTION DIVISION

At the close of 1958, the Construction Division of the San Francisco Section was close to disbandment. Attendance had thinned to a trickle and interest

was at low ebb. It was resolved to try and rebuild under new management, i.e., a new slate of officers comprising: Joseph Kaplan, chairman; Edward V. Schulhauser, vice-chairman; and Richard A. Lowell, secretary-treasurer.

Their success is illustrated quickest by this one-sentence summary of 1960's operations. Four meetings were held with an average attendance of 89 persons. This attendance rivals that of the parent Section.

Upon their retirement from office, Messrs. Kaplan, Schulhauser and Lowell collaborated in writing up their experience for the benefit of other struggling local technical divisions. Highlights of the report follow:

"The psychological outlook of the average engineer was carefully examined to determine what would bring him to meetings and cause him to participate in local technical division activities. It was found that---

- the average engineer is an introvert, not a good mixer, but has latent social and leadership capabilities.

- there are too many technical and professional meetings.

- most engineering meetings are rather dull and stuffy and require a mental effort akin to working.

- ASCE activities have strong competition from family, civic and religious activities and even stronger competition from sports and entertainment events (TV and otherwise)."

"It was therefore concluded that the average engineer would attend meetings—

- to meet his old friends and make new ones under relaxing and congenial circumstances.

- to have a few drinks at a reasonable price.

- to have a good meal at a reasonable price.

- to be entertained."

"The San Francisco CD meetings, consequently, were planned with these basic aims and policies:

- Meetings should be interesting, stimulating and preferably controversial.

- Atmosphere of meetings should be informal and congenial.

- Emphasis should be placed on topics of general interest to construction men rather than technical specialties.

- Publicity should be widespread.

- Quality of food and drink should be high, cost low, type varied (recent meetings included Chinese, seafood, Italian, continental).

- Speakers should be top men in their field. Surprisingly it is easy to obtain this caliber since such men regard public appearances as part of their job.

- Business at meetings must be held to an absolute minimum.

- Division activity should be self-supporting (through a small surcharge on meals).

Committee work is worthwhile if a worthwhile subject is found. To have a committee just for the sake of having a committee is unsound.

The report goes on to a detailed modus operandi for handling a specific meeting. Copies of the complete report may be obtained from Joseph Kaplan, P.O. Box 3247, Daly City, Calif.

CONSTRUCTION DIVISION MAY MAKE MORE AWARDS

The ASCE Committee on Society Honors has recommended the Construction Division assume responsibility for two of ASCE's most historic awards—

the Rowland and Laurie Prizes. These awards are given for papers describing accomplished works of construction, their cost and errors in design and construction. A full description is contained in the Official Register along with a list of previous winners.

Confirmation of the change is anticipated by the Board of Direction at the forthcoming Phoenix convention in April.

COMMENTS REQUESTED

Research Committee chairman William W. Moore solicits through this medium your comments on the partial list of subjects shown below which have been suggested for study (write Mr. Moore c/o Dames & Moore, 340 Market St., San Francisco 11, Calif.)

1. Concrete formwork design techniques
2. Improved methods and materials in underground piping
3. Statistical quality control of labor and materials
4. Methods of determining rate of progress
5. Reducing the complexity of permits for construction of a project
6. Organizing for a group effort in collective bargaining
7. Obtaining the most for the insurance dollar
8. Keeping subcontractors on schedule
9. Developing and training the construction manager
10. Travel time, subsistence and transportation expenses of labor and management
11. Using advance knowledge of weather conditions as an aid in scheduling

LARGE CONSTRUCTION PROGRAM AT PHOENIX

At ASCE's spring convention in Phoenix, Arizona April 10-14, there will be two full days of Construction Division-sponsored sessions, Wednesday and Thursday, April 12 and 13.

Theme of the Wednesday morning session will be the Mammoth Pool Project. Glen Canyon Dam will be the subject of two papers on Wednesday afternoon. Thursday morning will feature several highway-heavy construction papers, including the East Los Angeles interchange and a road project in Thailand.

The windup on Thursday afternoon will spotlight on Sea Water conversion and cover pilot plants built and under construction at Freeport, Texas, San Diego and Mandalay, California.

ROUNDUP OF CD ACTIVITIES IN 1960

Excerpts from the Executive Committee's Annual Report provide a summary of the year's work-a-day events not otherwise reported in these pages, past and present.

Contract Administration The Committee on Insurance and Bonding has been disestablished and its functions incorporated with those of the Contract Documents Committee whose name in turn has been changed to Contract Administration Committee. Documents committee chairman Blair Birdsall continues as chairman of the newly named group.

Job Planning This committee sponsored a talk at the New Orleans convention in March 1960 by Ross White of Brown and Root on the subject of "Planning Required for the Construction of the Old River Locks."

Construction of Nuclear Facilities This committee aided the Sessions Program Committee by arranging for speakers at the Washington, Reno and Boston ASCE conventions in October 1959, June and October, respectively, and at the Nuclear Science Congress in April 1960.

Work continues by committee members on preparation of a bibliography on design and construction of nuclear facilities. Publication is expected in the near future.

Adverse Weather Conditions A program was initiated in early 1960 whereby assistance on problems pertaining to construction under adverse weather conditions will be rendered to local sections. Write to Capt. Palmer W. Roberts (CEC USN), Navy No. 926 Box 193, FPO San Francisco, Calif.

Research Increased interest in the work of this committee has been manifested by numerous letters to its chairman. Committee membership has recently been enhanced by additional representation from Armed Forces research agencies, to wit: Col. H. J. Skidmore, Corps of Engineers District Engineer at Ft. Belvoir, Va.; Capt. L. N. Saunders of BuDocks and Dr. George A. Young, structures research expert for the Air Force. Idea is to draw upon the enormous and valuable R&D work done by the armed forces in the construction field.

Sessions Program W. O. Hiltabidle (VADM CEC USN) has assumed the chairmanship of the Sessions Program Committee, succeeding John J. Senesy.

Publications Whereas two years ago there hadn't been a CD Journal for some time, the Publication Committee notes the issuance of seven journals since that time. Judging from the fact that eight of the 25 papers in these journals have been selected for inclusion in Transactions, quality of CD papers has been on a par with those from other divisions, reports chairman M. D. Morris.

Executive Committee In an effort to improve liason between AGC and ASCE, the Executive Committee has requested of ASCE that the Secretary of the EC (Michael Salgo presently) be designated as a member of the Joint ASCE-AGC Cooperative Committee. In the same vein, the Executive Committee has recommended that action be initiated to establish a joint ASCE Construction Division-Construction Specifications Institute (CSI) Cooperative Committee with CD membership from the Contract Administration Committee. Admiral Jelley has recommended a series of special joint ASCE-AGC meetings in 1962 on the subjects of job planning, estimating, cost control and construction management. It is felt these programs would be of great interest to both Societies. Funds have been included in the CD budget submission for four such meetings (one per topic presumably).

Construction Standards This committee is working actively on state safety codes. A report to be given wide dissemination is expected sometime this year.

Equipment Maintenance This committee's survey of equipment maintenance practices (and complaints from equipment users) has been completed. As soon as all members have made their interpretations of results, the committee intends to circularize equipment manufacturers in an attempt to obtain improvements.

MORE NEWS ALWAYS WELCOME

Construction Division members having any items of interest are urged to write the Newsletter Editor. The criterion is simple—any item of interest to an appreciable number of CD members is welcome. Write Howard Jacoby, 3 Brook Path, Plainview, New York.

ASCE SYMPOSIUM ON ROCKFILL DAMS

At the meeting of the ASCE Board of Direction, in Reno in June 1960, it was arranged that the complete Symposium on Rockfill Dams of some seven hundred pages be published in one bound volume as ASCE TRANSACTIONS, 1960, Volume 125, Part II.

The volume will include all ASCE literature on the subject of rockfill dams from October 1954 to October 1960. It will comprise 24 papers and 75 discussions; the discussions following each paper. This special volume of 1960 ASCE TRANSACTIONS will provide a comprehensive, up-to-date and convenient reference volume on rockfill dams.

ASCE TRANSACTIONS, 1960, Volume 125, Part II is now available and is priced at \$12, making it available to ASCE members at \$6 with the usual 50% discount.

The Symposium has been planned to assemble design, construction and performance data on most of the world's higher rockfill dams. The presentation of settlement data has been emphasized and detailed data on many high dams has been made available for the first time in the papers and discussions.

For purposes of the Symposium, a rockfill dam was defined to be one that relies on rock, either dumped or compacted in layers, as a major structural element. Included are rockfill dams of the types with (1) impervious face membranes, (2) sloping earth cores, (3) thin central cores, and (4) thick central cores. Some of the notable dams covered in the Symposium and listed by the above types are: (1) Dix River, Salt Springs, Montgomery, Cogswell, San Gabriel, Lower Bear River, Paradela, Wishon, Courtright, Pinzanes, Nozori, and Ishibuchi; (2) Nantahala, Kenney, Brownlee, Bersimis, Dalles Closure, Translet, Miboro, Hirfanli, Queens Creek, Cedar Cliss, Bear Creek and Furnas; (3) Makio, Derbendi Khan, Kajakai, Mud Mountain, Goschener, Messaure and Cougar; (4) Nottely, Watauga, South Holston and Cherry.

Rockfill dams are being increasingly adopted throughout the world and are being constructed to ever-increasing heights. This Symposium will certainly contribute toward improved, more economic and higher rockfill dams of all types.

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March, 1961

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Executive Secretary
American Society of Civil Engineers
33 West 39th Street
New York 18, N.Y.

Please send me copy(s) of ASCE TRANSACTIONS, 1960, Volume 125,
Part II (Symposium on Rockfill Dams). Enclosed is my remittance of \$. . .
My ASCE membership grade is List Price \$12.00.

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SEWER DESIGN AND CONSTRUCTION MANUAL REPRINTED

ASCE Manual 37 "Design and Construction of Sanitary and Storm Sewers," issued in early 1960 as a joint effort with the Water Pollution Control Federation, has now been reprinted with corrections to several pages.

Those who have a copy of the 1960 edition can obtain, with the compliments of the Society, a reprint containing those pages that have been corrected for the 1961 printing. This reprint can be cut apart and the pages inserted into the previous edition.

The twelve-chapter manual contains 283 pages of text, 102 illustrations, 24 tables, and 119 references. As the first extended collection of information on the subject, it will make a valuable reference in an important phase of wastewater technology. Individual subjects covered include organization and administration of sewer projects, surveys and investigations, quantity of sanitary sewage and storm water, hydraulics of sewers, design of sewer systems, appurtenances and special structures, materials for sewer construction, structural requirements, construction plans and specifications, construction methods, and pumping stations.

The manual may be ordered by use of the coupon herewith. The list price is \$7.00 per copy; ASCE members and public and school libraries can order copies at a price of \$3.50 each. The price to members of WPCF is the same, upon application to that organization.

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American Society of Civil Engineers
33 West 39th Street
New York 18, New York

Please send me copy(s) of Manual 37. Enclosed is my remittance of \$....
My ASCE membership grade is List price \$7.00.
or

Please send me a complimentary reprint of those pages from Manual 37 that
were corrected for the 1961 edition . . .

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BIBLIOGRAPHY ON AIRPORT ENGINEERING

This comprehensive "Bibliography on Airport Engineering" chronicles and catalogs the engineering knowledge and experience that has appeared in papers, articles, and reports in the publications of the free world from 1938 to 1959. The Bibliography has grown out of the file maintained by the author, Shu-t'ien Li, F. ASCE, and has been augmented and verified in technical libraries in the United States.

ASCE publication 1960-41 is divided into 26 chapters and has a total of 2,335 entries. The subjects covered are, in part, location and planning, design and maintenance, earthwork, drainage, pavements (both rigid and flexible), lighting, hangars, heliports, and unit costs. Of special importance at this time is a chapter (with 169 entries) dealing with launching bases, space stations, and allied subjects.

The list price for this 184-page hard-bound book is \$8.00; ASCE members and libraries receive a 50% discount. The coupon herewith should be used to order this book.

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33 West 39th Street, New York 18, N.Y.

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Please send me _____ copy(s) of the
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